

# Data Calculation

Drug content of tablwt = 70.8 mg

Time (min)	Absorbance	Concentration (mg/ml)	Amount of drug dissolved	% Drug Dissolved
0	0	0	0	0
15	0.851	0.015	11.5	17%
30	0.987	0.0175	15.75	22.24%
45	0.995	0.0176	15.84	22.37%
60	1.051	0.0208	20.8	29.38%
90	1.363	0.0278	28.9	40.8%
120	1.402	0.029	30.8	43.5%

### Conclusions:

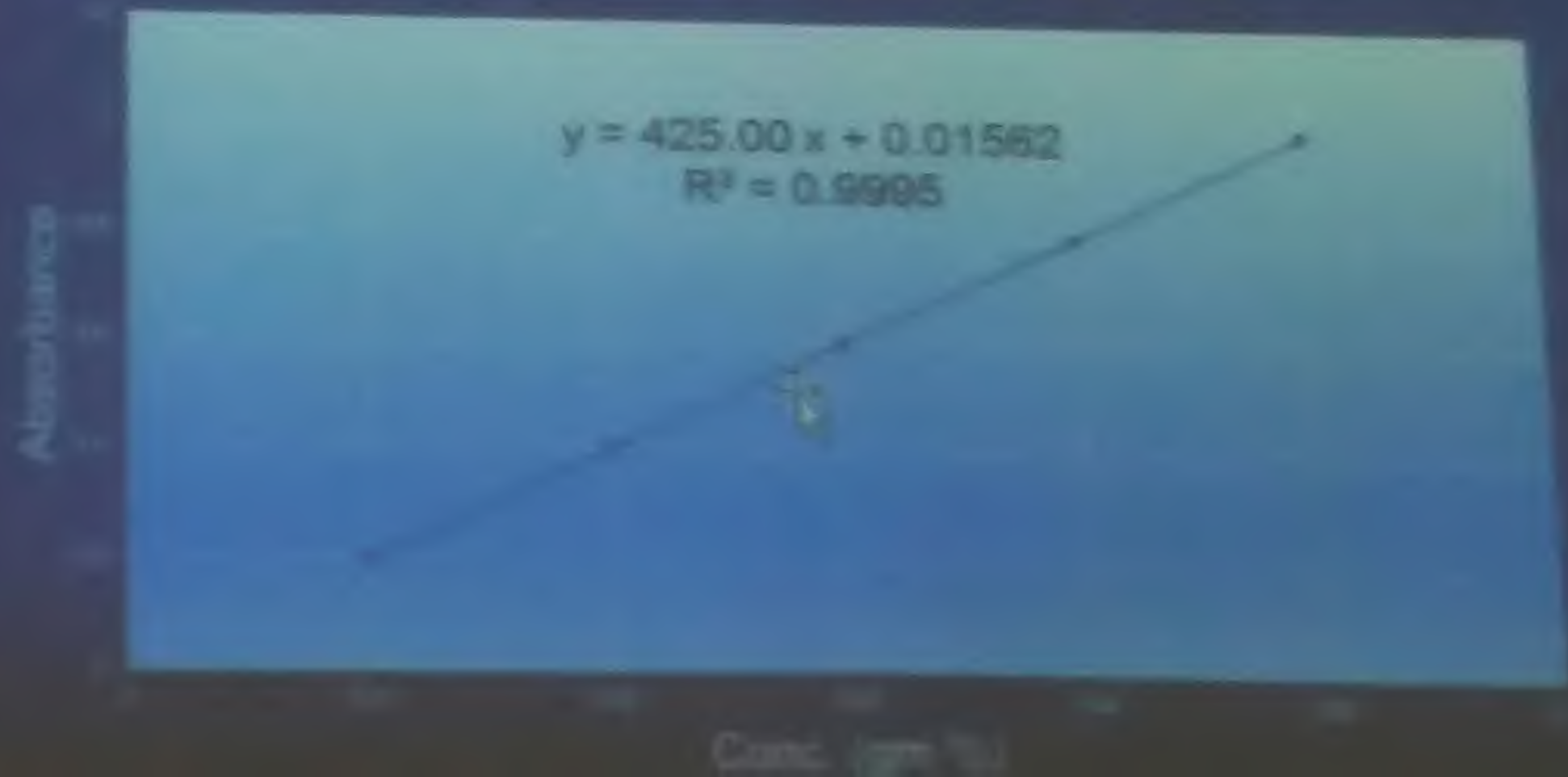
The percentage amount of acetaminophen dissolved is 22.24 % after 30 min.

The value is less than 90% . so the tablet does not comply with the requirements of USP.

## Problem 1

- Use the following calibration curve to do find out the samples concentrations.

Calibration curve in 900 ml 0.1N HCl



## Data Calculation

Drug content= 100 mg

Time (min)	Absorbance	Concentration (mg/ml)	Amount of drug dissolved	% Drug Dissolved
0	0	0	0	0
15	1.354	0.0318	28.67	28.67
30	2.257	0.0531	47.735	47.735
45	2.687	0.063	56.9	56.9
60	2.854	0.0805	62.58	62.58
90	3.251	0.0767	69.055	69.055
120	3.773	0.0885	75.45	75.45



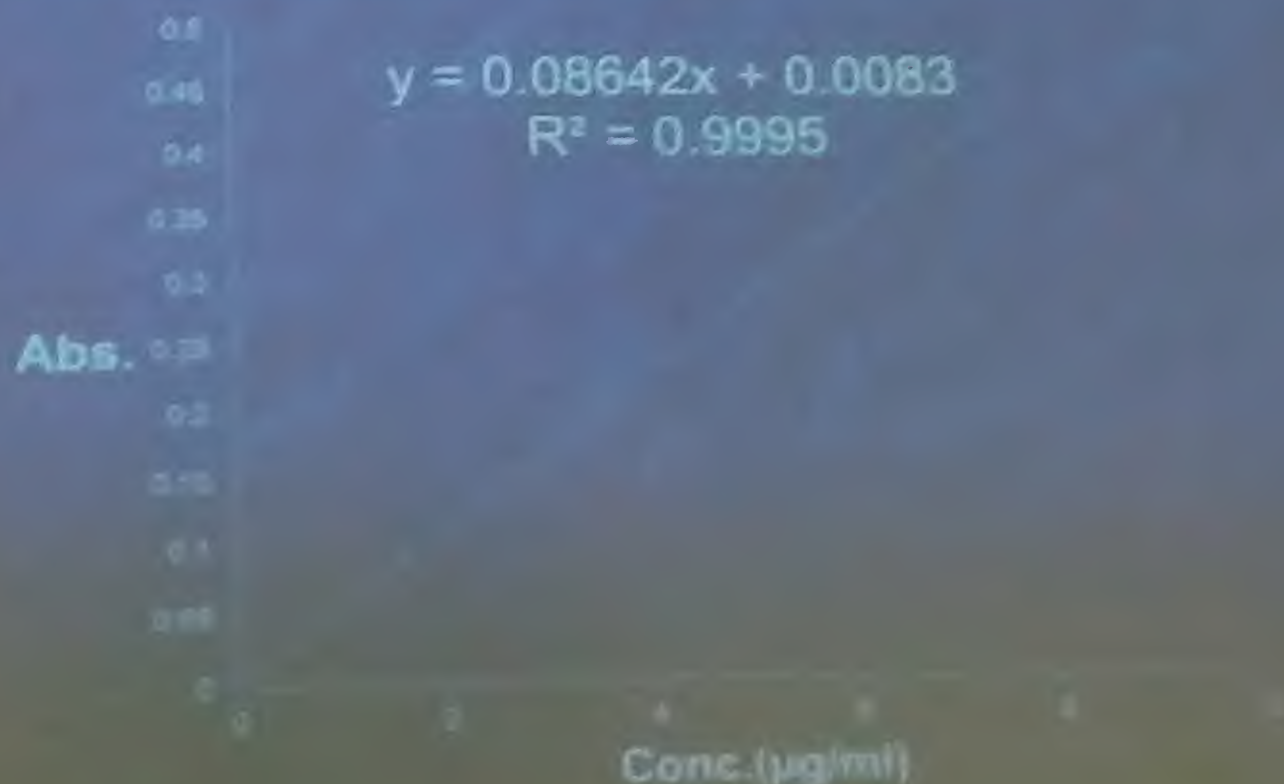
## Conclusions:

The percentage amount of drug dissolved is 47.79 % after 30 min.

The value is less than 90% , so the tablet does not comply with the requirements of USP.

### Problem 3

- Use the following calibration curve to do find out the samples concentrations.
- 1 ml of each sample was diluted to 10 ml with 0.1N HCl
- And measured at 243 nm
- Dissolution media in 500 ml 0.1N HCl
- Calibration curve in 0.1N HCl



## Data Calculation

Drug content= 500 mg

Time (min)	Absorbance	Concentration (mg/ml)	Amount of drug dissolved	% Drug Dissolved
0	0	0	0	0
15	3.5	0.405	202.5	40.5
30	4.55	0.526	263	52.6
45	5.54	0.641	320.5	64.12
60	5.98	0.682	341	68.2
90	6.8	0.787	393.5	78.7
120	7	0.825	412.5	82.5



## Conclusions:

The percentage amount of drug dissolved is 52.65 % after 30 min.

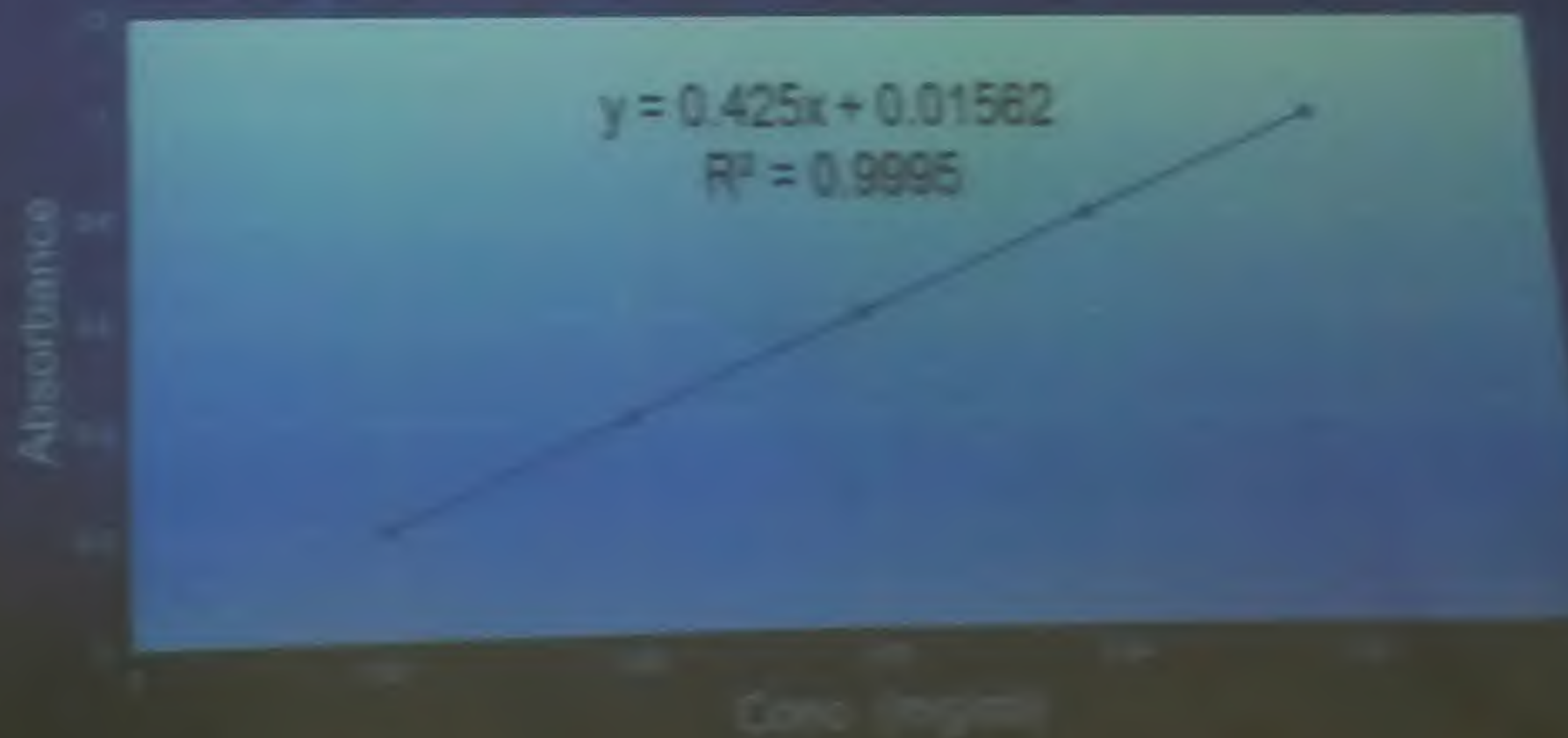
The value is less than 90% , so the tablet does not comply with the requirements of USP.



## Problem 2

- Use the following calibration curve to do find out the samples concentrations.
- And measured at 243 nm
- Dissolution medium is 900 ml

Calibration curve in 900 ml 0.1N HCl



**Drug content= 1000 mg**

Time (min)	Absorbance	Concentration (mg/ml)	Amount of drug dissolved	% Drug Dissolved
0	0	0	0	0
15	0.37	0.87	783	78.3
30	0.43	1.01	909	90.9
45	0.446	1.049	944.1	94.41
60	0.449	1.056	950.4	95
90	0.451	1.061	955	95.5
120	0.46	1.076	968.4	96.8

## Conclusions:

The percentage amount of drug dissolved is 90.9 % after 30 min.

The value is more than 90% , so the tablet comply with the requirements of USP.